New Source Review

On December 31, 2002 (67 FR 80185), and October 27, 2003 (68 FR 61247), the United States Environmental Protection Agency (EPA) finalized revisions governing the New Source Review (NSR) program mandated by the Clean Air Act (CAA). The major NSR program is a preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants. In areas not meeting health-based National Ambient Air Quality Standards (NAAQS), the program is referred to as the nonattainment NSR program. In areas meeting the NAAQS (attainment areas), the program is referred to as the Prevention of Significant Deterioration (PSD) program. Collectively, these programs are commonly referred to as the major NSR program.

In accordance with EPA's final rule revisions, state agency programs are required to adopt and submit revisions to their State Implementation Plans (SIPs) to include the minimum program elements outlined in the final rules. SIP revisions must be submitted no later than three years from the date that the rules were published in the *Federal Register.*

December 31, 2002 NSR Revisions

EPA finalized the first set of revisions on December 31, 2002. This set of revisions addressed four basic areas as follows:

Calculating Emissions Increases and Establishing Actual Emissions Baseline

Prior to the December 31, 2002 revisions to the NSR rules, a change at an existing source was considered a major modification (and thereby triggered NSR permitting requirements) if it would lead to a significant net increase in emissions. Under the old rule, a significant increase was determined using what has been referred to as the "Actual to Potential" test in which past actual emissions are compared to the future potential emissions from the change. The difference between the future emissions after the change (generally based on the potential to emit of the source) and the actual emissions before the change was compared to the significance thresholds to determine whether a significant increase would occur. Under the revised rule, EPA has adopted a new method for calculating emissions increases referred to as the "Actual-to-Projected-Actual" test. This new method compares past actual emissions to projected actual emissions to determine if the change would result in a significant increase in emissions.

In addition to the new emissions increase calculation, EPA has adopted a new definition of "baseline actual emissions" and revised the procedures for the calculation of the source's emissions before the change. Prior to the revisions, sources calculated their actual emissions by examining the average annual rate of actual emissions during the two years immediately preceding the change and any alternate time period was subject to approval. Under the revised rules, a source may use any consecutive 24 months during the 10-year period immediately preceding the change to represent the annual average actual emissions. Furthermore, the source may use a different consecutive 24-month period for each regulated pollutant in evaluating the proposed project.

The new revision for calculating the emission baseline applies only to non-utilities. As a result of a prior revision, utilities were allowed to use any consecutive 24-month period in the last five years, or a more representative period with permission, to calculate their baseline actual emissions. For utilities, this provision remains unchanged. The change in the method of calculating emissions increases applies to both utilities and non-utilities. Utilities had a similar set of procedures available to them as a result of prior rulemaking. However, the new rules revise these procedures for utilities to make them consistent

with those for non-utilities.

Clean Units

Before the final revisions on December 31, 2002, there were no provisions in the Federal rules for Clean Units. Any time an emissions unit was modified, or underwent a change in the method of operation that resulted in an increase in emissions, the emissions unit was subject to NSR permitting which would require the installation of Best Available Control Technology (BACT) in attainment areas and Lowest Achievable Emissions Reduction (LAER) in nonattainment areas.

Under the revised rules, an emissions unit may qualify as a Clean Unit if it is subject to, and complying with, a BACT determination made through the issuance of a NSR review permit anytime within the past 10 years. If a source has not undergone a BACT determination, it may still qualify as a Clean Unit if the source can demonstrate that the emissions unit is complying with controls comparable to BACT or substantially as effective as BACT. Clean Unit designations are good for 10 years and can be renewed if the source demonstrates that it still meets BACT. If the source maintains its Clean Unit status, any emissions increases that would occur from the emissions unit as a result of a project at the source are disregarded in determining whether the project is a major modification as long as the emissions limitations or work practices are unchanged.

Pollution Control Projects

Prior to the December 31, 2002 revisions a pollution control project (PCP) was defined as a project undertaken at a stationary source for the purpose of reducing emissions. Because projects that sought to reduce emissions of one regulated pollutant could possibly lead to an increase of another pollutant, EPA established a policy of excluding such projects from some NSR requirements if certain criteria were met. In order to qualify for the PCP exclusion, the decrease in the first pollutant must be environmentally beneficial when compared to the increase in the collateral pollutant. Also, the increase in collateral pollutant could not cause or contribute to a violation of a NAAQS or PSD increment, or adversely affect visibility or any other air quality related value.

Under the rule revisions, the environmentally beneficial requirement has been eliminated. A list of presumptively environmentally beneficial PCPs has been added to the rule. If a source chooses a PCP from this list, the project will not be subject to major NSR. The actual-to-projected-actual test may used to calculate emissions increases for the source impact analysis. If the PCP results in a significant increase of a nonattainment pollutant, the increase must be offset.

Plantwide Applicability Limits (PALs)

Prior to December 31, 2002, there were no specific provisions in the federal rule to accommodate the use of PALs as an NSR applicability threshold at a facility. Nonetheless, EPA initiated a pilot program to develop several PAL permits over the last decade. Generally, the pilot PAL permits were labor-intensive to develop, and utilized somewhat varying approaches in establishing the PAL baseline and permit terms and conditions.

The new revisions establish the regulatory provisions to authorize PALs. A PAL is an annual, facility-wide emission limitation under which the facility can make any changes without triggering NSR review for a specific pollutant. The term of the PAL is ten years. A facility may use the new baseline actual emission definition to establish the PAL. Once the baseline emissions are determined, an emissions rate, equal to the significance threshold of the regulated pollutant for which the PAL is being set, is added to the baseline emissions. If a facility requests for an increase in the PAL, the facility must show that if

BACT level controls were applied to each emissions source at the facility, the new source could still not be accommodated under the current PAL. The emissions unit(s) causing the need for the increase would be required to under go major NSR. PAL permits must incorporate sufficient monitoring, recordkeeping, and reporting requirements to assure compliance with the PAL when taking into account emissions for the regulated PAL pollutant from every emissions source at the facility.

October 27, 2003 Rule - Routine Maintenance, Repair and Replacement (RMRR)

Under the old rules, RMRR was excluded from the meaning of physical change or change in the method of operation. The determination of whether a change qualified for the RMRR exclusion was a case-by-case decision. An owner/operator could make the determination, or could seek the concurrence of the permitting authority prior to excluding a change from consideration as a modification. The criteria EPA established for the review included the nature, extent, purpose, frequency, and cost of the activity, and relied on a common-sense evaluation.

Under the October 27, 2003 rule, the replacement of any component of a process unit with a functionally equivalent component, and any associated maintenance and repair activities, qualify for the exclusion if the cost of the replacement activities does not exceed 20% of the replacement value of the process unit, provided that the replacement does not change the basic design parameters of the process unit and that the activity would not cause the process unit to exceed any applicable emission limits or operational limit. The replacement value of the process unit is calculated by: (1) replacement cost (estimate of the fixed capital cost of constructing a new process unit or the current appraised value of the process unit); (2) invested cost, adjusted for inflation; (3) the insurance value, where the insurance value covers complete replacement of the process unit; or (4) another accounting procedure based on Generally Accepted Accounting Principals (GAAP). Options 3 or 4 require the facility to notify the reviewing authority. The first notice may be made at any time, but subsequent notices allowed only at the beginning of the process unit's fiscal year. Control equipment is not considered part of the process and the costs of this equipment is not calculated in the replacement value of the process unit. However, equipment that serves a dual purpose of process equipment and control equipment (combustion equipment used to produce steam and to control HAPs; Low NO_x Burners) are considered to be part of the process unit and the cost of these control units can be added to the cost of the process unit.

On October 28, 2003, fourteen states sued the EPA on the RMRR revision. On December 24, 2003, the U.S. Court of Appeals for the D. C. Circuit issued a stay of the October 27, 2003 final rule. The stay will remain in effect while the court considers the merits of the challenge to the rule.

South Carolina Regulatory Schedule

- Notice of Drafting published in the *State Register* — January 2004
- Stakeholder Meetings — March - August 2004
- Proposed Regulation published in the *State Register* — September 2004
- Public Hearing before the S.C. Board of Health & Environmental Control — December 2004
- Final Regulations submitted to the S.C. Legislature for approval — January 2005
- Final Regulations published in the *State Register* (effective upon publication) — June 2005